

WHAT IS CLAIMED IS:

1 1. A system for remotely configuring storage space, the system
2 comprising:

3 a plurality of storage devices, the plurality of storage devices having
4 storage space comprising free storage space and allocated storage space, wherein the
5 allocated storage space has a size and is to be allocated to a user for storing data
6 from the user, the user to be located at a site remote from the plurality of storage
7 devices; and

8 a controller to be provided in communication with the plurality of
9 storage devices and the remote user for automatically transferring a portion of the
10 free storage space to the allocated storage space in response to a request by the
11 remote user to increase the size of the allocated storage space.

1 2. The system of claim 1 wherein the controller comprises a
2 computer program.

1 3. The system of claim 1 wherein the controller comprises a
2 processor.

1 4. The system of claim 1 wherein the request by the remote user is
2 to the controller.

1 5. The system of claim 2 wherein the computer program is to be
2 provided on a server located at a site remote from the user, and wherein the plurality
3 of storage devices are located at the server site.

1 6. The system of claim 1 further comprising a storage device
2 manager to be provided in communication with the remote user and the plurality of
3 storage devices, wherein the storage device manager presents a plurality of virtual
4 storage volumes to the remote user for use in storage and retrieval of the user data,
5 and the plurality of virtual storage volumes are mapped to the allocated storage
6 space of the plurality of storage devices.

1 7. The system of claim 1 wherein the plurality of storage devices are
2 part of a storage network.

1 8. The system of claim 1 wherein the plurality of storage devices
2 comprises a plurality of disk storage devices.

1 9. The system of claim 1 wherein the controller is further for
2 automatically transferring a portion of the allocated storage space to the free storage
3 space in response to a request by the remote user to decrease the size of the allocated
4 storage space.

1 10. The system of claim 9 wherein the request by the remote user is
2 to the controller.

1 11. A method for remotely configuring storage space, the method
2 comprising:
3 providing a plurality of storage devices, the plurality of storage
4 devices having storage space comprising free storage space and allocated storage
5 space, wherein the allocated storage space has a size and is to be allocated to a user
6 for storing data from the user, the user to be located at a site remote from the
7 plurality of storage devices; and
8 providing a controller to be provided in communication with the
9 plurality of storage devices and the remote user for automatically transferring a
10 portion of the free storage space to the allocated storage space in response to a
11 request by the remote user to increase the size of the allocated storage space.

1 12. The method of claim 11 wherein the controller comprises a
2 computer program.

1 13. The method of claim 11 wherein the controller comprises a
2 processor.

1 14. The method of claim 11 wherein the request by the remote user
2 is to the controller.

1 15. The method of claim 12 wherein the computer program is to be
2 provided on a server located at a site remote from the user, and wherein the plurality
3 of storage devices are located at the server site.

1 16. The method of claim 11 further comprising providing a storage
2 device manager to be provided in communication with the remote user and the
3 plurality of storage devices, wherein the storage device manager presents a plurality
4 of virtual storage volumes to the remote user for use in storage and retrieval of the
5 user data, and the plurality of virtual storage volumes are mapped to the allocated
6 storage space of the plurality of storage devices.

1 17. The method of claim 11 wherein the plurality of storage devices
2 are part of a storage network.

1 18. The method of claim 11 wherein the plurality of storage devices
2 comprises a plurality of disk storage devices.

1 19. The method of claim 11 wherein the controller is further for
2 automatically transferring a portion of the allocated storage space to the free storage
3 space in response to a request by the remote user to decrease the size of the allocated
4 storage space.

1 20. The method of claim 19 wherein the request by the remote user
2 is to the controller.

1 21. A method for remotely configuring storage space in a system
2 having a plurality of storage devices, the plurality of storage devices having storage
3 space comprising free storage space and allocated storage space, wherein the
4 allocated storage space has a size and is to be allocated to a user for storing data

5 from the user, the user to be located at a site remote from the plurality of storage
6 devices, the method comprising:
7 providing a controller to be provided in communication with the
8 plurality of storage devices and the remote user for automatically transferring a
9 portion of the free storage space to the allocated storage space in response to a
10 request by the remote user to increase the size of the allocated storage space.

1 22. The method of claim 21 wherein the controller comprises a
2 computer program.

1 23. The method of claim 21 wherein the controller comprises a
2 processor.

1 24. The method of claim 21 wherein the request by the remote user
2 is to the controller.

1 25. The method of claim 22 wherein the computer program is to be
2 provided on a server located at a site remote from the user, and wherein the plurality
3 of storage devices are located at the server site.

1 26. The method of claim 21 further comprising providing a storage
2 device manager to be provided in communication with the remote user and the
3 plurality of storage devices, wherein the storage device manager presents a plurality
4 of virtual storage volumes to the remote user for use in storage and retrieval of the
5 user data, and the plurality of virtual storage volumes are mapped to the allocated
6 storage space of the plurality of storage devices.

1 27. The method of claim 21 wherein the plurality of storage devices
2 are part of a storage network.

1 28. The method of claim 21 wherein the plurality of storage devices
2 comprises a plurality of disk storage devices.

1 29. The method of claim 21 wherein the controller is further for
2 automatically transferring a portion of the allocated storage space to the free storage
3 space in response to a request by the remote user to decrease the size of the allocated
4 storage space.

1 30. The method of claim 29 wherein the request by the remote user
2 is to the controller.

1 31. In a storage system having a plurality of storage devices, the
2 plurality of storage devices having storage space comprising free storage space and
3 allocated storage space, the allocated storage space having a size and being allocated
4 to a remote user for storing data from the user, a method for configuring storage
5 space, comprising:
6 automatically receiving a request from the user to increase the size
7 of the allocated storage space; and
8 automatically transferring a portion of the free storage space to the
9 allocated storage space in response to the request by the user to increase the size of
10 the allocated storage space.

1 32. The method of claim 31 wherein the storage system also includes
2 a controller for use in automatically transferring a portion of the free storage space
3 to the allocated storage space.

1 33. The method of claim 32 wherein the controller is also for use in
2 receiving the request by the user to increase the size of the allocated storage space.

1 34. The method of claim 31 wherein the storage system also includes
2 a storage device manager in communication with the user and the plurality of
3 storage devices, wherein the storage device manager presents a plurality of virtual
4 storage volumes to the user for use in storage and retrieval of the user data, and the
5 plurality of virtual storage volumes are mapped to the allocated storage space of the
6 plurality of storage devices.

1 35. The method of claim 31 wherein the plurality of storage devices
2 are part of a storage network.

1 36. In a storage system having a plurality of storage devices, the
2 plurality of storage devices having storage space comprising free storage space and
3 allocated storage space, the allocated storage space having a size and being allocated
4 to a remote user for storing data from the user, a method for configuring storage
5 space, comprising:

6 automatically receiving a request from the user to decrease the size
7 of the allocated storage space; and

8 automatically transferring a portion of the allocated storage space to
9 the free storage space in response to the request by the user to decrease the size of
10 the allocated storage space.

1 37. The method of claim 36 wherein the storage system also includes
2 a controller for use in automatically transferring a portion of the free storage space
3 to the allocated storage space.

1 38. The method of claim 37 wherein the controller is also for use in
2 receiving the request by the user to increase the size of the allocated storage space.

1 39. The method of claim 36 wherein the storage system also includes
2 a storage device manager in communication with the user and the plurality of
3 storage devices, wherein the storage device manager presents a plurality of virtual
4 storage volumes to the user for use in storage and retrieval of the user data, and the
5 plurality of virtual storage volumes are mapped to the allocated storage space of the
6 plurality of storage devices.

1 40. The method of claim 36 wherein the plurality of storage devices
2 are part of a storage network.